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(FILE 'HOME' ENTERED AT 16:01:58 ON 09 DEC 2004)

FILE 'HCAPLUS' ENTERED AT 16:02:03 ON 09 DEC 2004

L1 1 US20040063673/PN
E US2002-403255/AP, PRN
L2 1 US2002-403255P/AP, PRN
L3 1 L1-2

FILE 'REGISTRY' ENTERED AT 16:03:00 ON 09 DEC 2004

FILE 'HCAPLUS' ENTERED AT 16:03:01 ON 09 DEC 2004

L4 TRA L3 1- RN : 3 TERMS

FILE 'REGISTRY' ENTERED AT 16:03:01 ON 09 DEC 2004

L5 3 SEA L4

FILE 'WPIX' ENTERED AT 16:03:03 ON 09 DEC 2004

L6 1 US2002-403255P/AP, PRN
L7 1 US20040063673/PN
E US2002-403255/AP, PRN
L8 1 L6-7

=> b hcap

FILE 'HCAPLUS' ENTERED AT 16:04:04 ON 09 DEC 2004

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FILE COVERS 1907 - 9 Dec 2004 VOL 141 ISS 24

FILE LAST UPDATED: 8 Dec 2004 (20041208/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all l3

L3 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:142965 HCAPLUS
DN 140:175188
ED Entered STN: 22 Feb 2004
TI Cyclic compounds containing zinc binding groups as matrix metalloproteinase inhibitors
IN Johnson, Adam Richard
PA Warner-Lambert Company Llc, USA
SO PCT Int. Appl., 316 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-517
ICS C07D239-91; C07D495-04; A61K031-4365; A61P029-00
CC 1-12 (Pharmacology)
Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004014384	A2	20040219	WO 2003-IB3518	20030804 <--
	WO 2004014384	A3	20040722		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,			

Search done by Noble Jarrell

TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004063673 A1 20040401 US 2003-634531 20030805 <--
 PRAI US 2002-403255P P 20020813 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004014384	ICM	A61K031-517
	ICS	C07D239-91; C07D495-04; A61K031-4365; A61P029-00

OS MARPAT 140:175188

AB This invention provides compds. defined by Formula (I)
 ((Z-L-R1-Q-D-(V1)m-R2) or a pharmaceutically acceptable salt thereof,
 wherein Z = HO2C, HO(H)N(O)C, H(O)C-N(OH), CH3(O)C-N(OH),
 CH3(H)N(O)C-N(OH), heterocyclic, etc.; L = substituted C3-C5 alkylene or
 heteroalkylene; R1 = C5 or C6 cycloalkylene-(C1-C5 alkylene),
 substituted C5 or C6 cycloalkylene-(C1-C8 alkylene), 5- or 6-membered
 heterocycloalkylene-(C1-C8 alkylene), substituted 5- or 6-membered
 heterocycloalkylene-(C1-C8 alkylene), phenylene-(C1-C8 alkylene),
 etc.; D = cyclic diradical group; Q, when bonded to a nitrogen atom in
 group D, = OC(O), CH(R6)C(O), OC(NR6), CH(R6)C(NR6), N(R6)C(O), N(R6)C(S),
 N(R6)C(NR6), SC(O), (R6)-heterocycle, etc.; each R6 independently is H,
 C1-C6 alkyl, C3-C6 cycloalkyl, 3- to 6-membered heterocycloalkyl, etc.; V1
 is a 5-membered heteroarylene containing carbon atoms and from 1 to 4
 heteroatoms; and R2 = H, C1-C6 alkyl, phenyl-(C1-C8 alkylene),
 substituted phenyl-(C1-C5 alkylene), naphthyl-(C1-C8 alkylene),
 substituted naphthyl-(C1-C8 alkylene), 5- or 6-membered
 heteroaryl-(C1-C5 alkylene), etc.). The invention also provides
 pharmaceutical compns. comprising a compound of Formula I, or a
 pharmaceutically acceptable salt thereof, as defined in the specification,
 together with a pharmaceutically acceptable carrier, diluent, or
 excipient. The invention also provides methods of inhibiting an MMP-13
 enzyme in an animal, comprising administering to the animal a compound of
 Formula I, or a pharmaceutically acceptable salt thereof. The invention
 also provides methods of treating a disease mediated by an MMP-13 enzyme
 in a patient, comprising administering to the patient a compound of Formula
 I, or a pharmaceutically acceptable salt thereof, either alone or in a
 pharmaceutical composition. The invention also provides methods of treating
 diseases such as heart disease, multiple sclerosis, osteo- and rheumatoid
 arthritis, arthritis other than osteo- or rheumatoid arthritis, cardiac
 insufficiency, inflammatory bowel disease, heart failure, age-related
 macular degeneration, chronic obstructive pulmonary disease, asthma,
 periodontal diseases, psoriasis, atherosclerosis, and osteoporosis in a
 patient, comprising administering to the patient a compound of Formula I, or
 a pharmaceutically acceptable salt thereof, either alone or in a
 pharmaceutical composition. The invention also provides combinations,
 comprising a compound of Formula I, or a pharmaceutically acceptable salt
 thereof, together with another pharmaceutically active component as
 described in the specification.

ST cyclic compd zinc binding group matrix metalloproteinase inhibitor;
 arthritis treatment cyclic compd metalloproteinase inhibitor

IT Drug delivery systems
 (capsules; cyclic compds. containing zinc binding groups as matrix
 metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
 (carriers; cyclic compds. containing zinc binding groups as matrix
 metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Antiarthritics

Antirheumatic agents

Human

Osteoarthritis

Rheumatoid arthritis

(cyclic compds. containing zinc binding groups as matrix metalloproteinase
 inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
 (diluent; cyclic compds. containing zinc binding groups as matrix
 metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
 (excipients; cyclic compds. containing zinc binding groups as matrix
 metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
 (injections; cyclic compds. containing zinc binding groups as matrix
 metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems

(ointments; cyclic compds. containing zinc binding groups as matrix metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
(suppositories; cyclic compds. containing zinc binding groups as matrix metalloproteinase inhibitors for treatment diseases such as arthritis)

IT Drug delivery systems
(tablets; cyclic compds. containing zinc binding groups as matrix metalloproteinase inhibitors for treatment diseases such as arthritis)

IT 175449-82-8, Matrix metalloproteinase 13
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cyclic compds. containing zinc binding groups as matrix metalloproteinase inhibitors for treatment diseases such as arthritis)

IT 658679-95-9 658679-96-0
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cyclic compds. containing zinc binding groups as matrix metalloproteinase inhibitors for treatment diseases such as arthritis)

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STRUCTURE FILE UPDATES: 8 DEC 2004 HIGHEST RN 795251-52-4
DICTIONARY FILE UPDATES: 8 DEC 2004 HIGHEST RN 795251-52-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

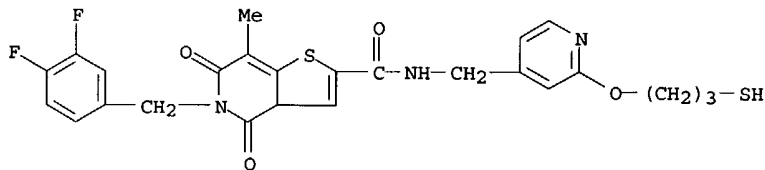
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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L5 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 658679-96-0 REGISTRY
CN Thieno[3,2-c]pyridine-2-carboxamide, 5-[(3,4-difluorophenyl)methyl]-3a,4,5,6-tetrahydro-N-[[2-(3-mercaptopropoxy)-4-pyridinyl]methyl]-7-methyl-4,6-dioxo- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C25 H23 F2 N3 O4 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAPLUS document type: Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)



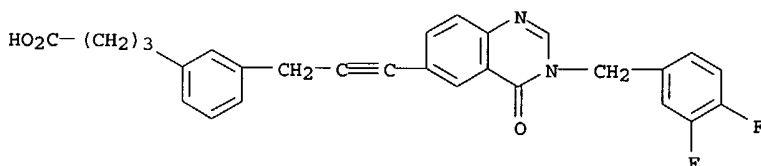
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
RN 658679-95-9 REGISTRY

Search done by Noble Jarrell

CN Benzenebutanoic acid, 3-[3-[(3,4-difluorophenyl)methyl]-3,4-dihydro-4-oxo-6-quinazolinyl]-2-propynyl]- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C28 H22 F2 N2 O3
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 175449-82-8 REGISTRY
 CN Collagenase 3 (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Matrix metalloprotease 13
 CN Matrix metalloproteinase-13
 CN MMP-13
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: BIOSIS, BIOTECHNO, CA, CAPLUS, CHEMCATS, EMBASE, TOXCENTER, USPAT2, USPATFULL
 DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
 RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 1075 REFERENCES IN FILE CA (1907 TO DATE)
 5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1086 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> b wpix
 FILE 'WPIX' ENTERED AT 16:04:37 ON 09 DEC 2004
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FILE LAST UPDATED: 8 DEC 2004 <20041208/UP>
 MOST RECENT DERWENT UPDATE: 200479 <200479/DW>
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Derwent Chemistry Resource display fields <<<

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L8 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2004-247883 [23] WPIX
DNC C2004-096766
TI New cyclic compounds are matrix metalloproteinase inhibitors useful for
the treatment of osteoarthritis and rheumatoid arthritis.
DC B05
IN JOHNSON, A R
PA (JOHN-I) JOHNSON A R; (WARN) WARNER LAMBERT CO LLC
CYC 103
PI WO 2004014384 A2 20040219 (200423)* EN 316 A61K031-517
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL
PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU
ZA ZM ZW
US 2004063673 A1 20040401 (200425) A61K031-66 <--
AU 2003249539 A1 20040225 (200456) A61K031-517
ADT WO 2004014384 A2 WO 2003-IB3518 20030804; US 2004063673 A1
Provisional US 2002-403255P 20020813, US 2003-634531 20030805; AU
2003249539 A1 AU 2003-249539 20030804
FDT AU 2003249539 A1 Based on WO 2004014384
PRAI US 2002-403255P 20020813; US 2003-634531
20030805
IC ICM A61K031-517; A61K031-66
ICS A61K031-4162; A61K031-4196; A61K031-426; A61K031-433; A61K031-4365;
A61K031-515; A61P029-00; C07D239-91; C07D495-04
AB WO2004014384 A UPAB: 20040405
NOVELTY - Cyclic compounds (I) and their salts are new.
DETAILED DESCRIPTION - Cyclic compounds of formula Z-L-R1Q-D-(V1)m-R2
(I) and their salts are new.
Z = HO2C, HO(H)N(O)C, H(O)C-N(OH), CH3(O)C-N(OH), CH3(H)N(O)C-N(OH),
HS, H2N(O)2S, CH3(H)N(O)2S, HO(O)P, (HO)2(O)P, barbituric acid,
thien-2-yl, 1,3-thiazol-5-yl, 1,2,4-thiadiazol-2-yl, pyrrol-2-yl,
imidazol-5-yl, pyrazol-5-yl, 1,3,4-triazol-2-yl, tetrazol-5-yl,
tetrazol-4-yl, 4H-5-oxo-1,2,4-oxadiazol-3-yl, 4H-5-thioxo-1,2,4-oxadiazol-
3-yl, 3H-2-thioxo-1,3,4-thiadiazol-5-yl, 3H-5-oxo-1,2,4-thiadiazol-3-yl or
2-oxo-3,2,1,4-oxathiadiazol-5-yl;
L = 3-5C alkylenyl, 3-5 heteroalkylenyl (all optionally substituted
on C or N by 1-2 OH, CN or CF3, (where each substituent on C may further
be independently F, or where 2 substituents may be taken together with a C
to which they are both bonded to form C=O);
R1 = 5-6C cycloalkylenyl (1-8C alkylenyl), 5-6 membered
heterocycloalkylenyl-1-8C alkylenyl, phenylenyl-(1-8C alkylenyl), 5 or 6
membered heteroarylenyl (1-8C alkylenyl), phenyl, naphthyl, 5-6 membered
heteroaryl, 8-10 membered heterobiaryl (all optionally substituted);
R2 = H, 1-6C alkyl, phenyl (1-8C alkylenyl), naphthyl (1-8C
alkylenyl), 5-6 membered heteroaryl (1-8C alkylenyl), 8-10 membered
heterobiaryl (1-8C alkylenyl), phenyl-O-(1-8C alkylenyl), phenyl-S-(1-8C
alkylenyl), phenyl-S(O)-(1-8C alkylenyl) or phenyl-S(O)2-(1-8C alkylenyl)
(all optionally substituted);
m = 0-1;
Q (when bonded to N atom in D) = e.g. OC(O), CH(R6)C(O), OC(NR6),
CH(R6)C(NR6), N(R6)C(O), N(R6)C(S), N(R6)C(NR6), SC(O), CH(R6)C(S),
SC(NR6), or C equivalent to CCH2; or
Q (when bonded to C atom in D) = OCH2, N(R6)CH2, trans-(H)C=C(H),
cis-(H)C=C(H), C equivalent to C, CH2C equivalent to C, CF2C equivalent to
C, or C equivalent to CCF2;
R6 = H, 1-6C alkyl, 3-6C cycloalkyl, 3-6 membered heterocycloalkyl,
phenyl, benzyl or 5-6 membered heteroaryl;
D = e.g. heteroaryl group (optionally substituted);
V1 = 5-membered heteroarylenyl carbon atoms with 1-4 O, S, N, 1
N(1-6C alkyl) or 4 N, (where the O and S atoms are not both present, and
the heteroarylenyl may optionally be unsubstituted or substituted with 1
substituent selected from F, CH3, OH, CF3, CN and acetyl).

Search done by Noble Jarrell

Full Definitions are given in the DEFINITIONS (Full Definitions) section.

ACTIVITY - Antiarthritic; Osteopathic; Antirheumatic; Cardiant; Neuroprotective.

MECHANISM OF ACTION - Matrix Metalloproteinase Inhibitor.

Test details are described, but no results are given.

USE - Compounds (I) are useful for the treatment of osteoarthritis and rheumatoid arthritis (claimed). (I) are also useful to treat other diseases mediated by matrix metalloproteinase enzyme e.g. heart failure and multiple sclerosis.

ADVANTAGE - (I) Have low toxicity.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B06-H; B07-H; B14-C06; B14-C09; B14-D07C; B14-F01; B14-J01B3; B14-N01

=> b home

FILE 'HOME' ENTERED AT 16:04:48 ON 09 DEC 2004

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